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IPSOLON LLP 805 SW BROADWAY, #2740 PORTLAND, OR 97205			LEE, CHRISTOPHER E	
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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/016,630	<b>Applicant(s)</b> CHANG ET AL.	
	<b>Examiner</b> Christopher E. Lee	<b>Art Unit</b> 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-31 and 33-87 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-31 and 33-87 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Receipt Acknowledgement*

1. Receipt is acknowledged of the Amendment filed on 3<sup>rd</sup> of December 2004. Claims 1, 2, 12-16, 18, 20, 25, 31, 33-38, 40-42, 44-47, 59-61, 64, 65, 67, 68, 70, 76-81 and 85-87 have been amended;  
5 claims 11 and 32 have been canceled; and no claim has been newly added since the Non-Final Office Action was mailed on 28<sup>th</sup> of May 2004. Currently, claims 1-10, 12-31 and 33-87 are pending in this application.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a  
10 prior Office action.

3. Claims 1, 3, 4, 6-10, 12-16, 18, 21, 22, 24-31, 33-37, 64, 66, 67, 69-75, 78, 80 and 82-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon et al. [US 6,607,314 B1; hereinafter McCannon].

*Referring to claim 1*, Hanson discloses a method of rendering (i.e., printing) at a local output  
15 device (i.e., peripheral device 56 of Fig. 2, e.g. printer 27 of Fig. 1) data content that is local to and accessible from an information apparatus (i.e., PC 23 of Fig. 1; See col. 4, lines 10-20), the method comprising: receiving at said information apparatus information (i.e., printer set-up information, menu item selections or status information of the printer) relating to said output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32); establishing a channel of communication (i.e., communication channel)  
20 directly between said information apparatus and said output device (See col. 8, lines 1-15); obtaining at said information apparatus one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) relating to said output device (See col. 4, lines 45-57); generating at said information apparatus device-dependent output data (i.e., output of application software executing the function with the peripheral device) employing at least in part one

device-dependent component (i.e., employing the OS independent device driver portion; See col. 8, lines 60-63); and transmitting (i.e., communicating) said device-dependent output data via said communication channel directly to said output device, from which the device-dependent output data is delivered to said output device for rendering (See col. 8, lines 43-65).

- 5 Hanson does not expressly teach establishing said channel of communication directly between said information apparatus and an output controller device in local association with said output device. McCannon discloses a method of updating device drivers and other software routines (See Abstract and col. 1, lines 6-8), wherein said method comprising establishing a channel of communication (i.e., communication link between input/output module 34 and input/output module 12 in Fig. 1; See col. 5, lines 19-22) directly between an information apparatus (i.e., PC 30 of Fig. 1) and an output controller device (i.e., Printer 10 of Fig. 1) in local association with an output device (i.e., Print Mechanism and Controller 22 of Print Engine in Fig. 1; See col. 5, lines 10-15).

- 10 Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted said printing mechanism (i.e., Printer 10, Print Mechanism and Controller 22 of Print Engine in Fig. 1), as disclosed by McCannon, for said local output device (i.e., printer), as disclosed by Hanson, so as to print an image corresponding to a bit map from said device-dependent output data (i.e., PDL message) generated by said one or more device-dependent components (i.e., active printer driver routine; See McCannon, col. 2, lines 48-56).

- 15 *Referring to claim 3*, Hanson teaches said information apparatus includes a personal computer (i.e., PC 23 of Fig. 1).

*Referring to claim 4*, McCannon teaches said output device includes a printing device (i.e., Printer 10, Print Mechanism and Controller 22 of Print Engine in Fig. 1).

*Referring to claim 6*, Hanson teaches said information (i.e., printer set-up information, menu item selections or status information of the printer; See col. 5, lines 13-25) relating to said output device (i.e.,

peripheral device 56 of Fig. 2, e.g. printer 27 of Fig. 1) is obtained from said output device (See col. 8, lines 16-19).

*Referring to claim 7*, Hanson teaches said one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) include software  
5 code (i.e., GUI object 52 and status monitor object 59 in Fig. 2; See col. 8, lines 19-21 and 51-56).

*Referring to claim 8*, Hanson teaches said one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) include software application (i.e., GUI object 52 and status monitor object 59 in Fig. 2; See col. 8, lines 19-21 and 51-56).

*Referring to claim 9*, Hanson teaches said one or more device-dependent components (i.e., GUI  
10 object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) include at least part of a device driver (i.e., peripheral specific data objects 54 of Fig. 2; See col. 8, lines 44-63).

*Referring to claim 10*, Hanson teaches said one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) include information  
15 (i.e., said peripheral specific data objects are printer set-up information, menu item selections and status information of the printer) relating to said output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32).

*Referring to claim 12*, McCannon teaches said output controller device (i.e., Printer 10 of Fig. 1) is internal to said output device (i.e., internal to Print Mechanism and Controller 22 of Print Engine in Fig. 1).

*Referring to claim 13*, McCannon teaches said output controller device (i.e., Printer 10 of Fig. 1)  
20 is an external controller (i.e., external printing controller to PC 30 in Fig. 1; See col. 4, line 66 through col. 5, line 15).

*Referring to claim 14*, McCannon teaches said output controller device (i.e., Printer 10 of Fig. 1) performs, at least partially, raster image processing on said data content (See col. 5, lines 10-15; i.e.,

wherein in fact that a formatter embodied in firmware for converting PCL to bit mapped printable images clearly suggests that said output controller device performs, at least partially, raster image processing on said data content).

*Referring to claim 15*, McCannon teaches said output device (i.e., Print Mechanism and

5 Controller 22 of Print Engine in Fig. 1) includes an output engine (i.e., Print Engine in Fig. 1), and converting said output data content into a form compatible with said output engine (See col. 5, lines 10-15; i.e., wherein in fact that a formatter embodied in firmware for converting PCL to bit mapped printable images clearly suggests that converting said output data content into a form compatible with said output engine).

10 *Referring to claim 16*, McCannon teaches said output device (i.e., Print Mechanism and

Controller 22 of Print Engine in Fig. 1) is a printer (See Printer 10 and Print Mechanism and Controller 22 of Print Engine in Fig. 1) and includes a print controller (See col. 4, line 66 through col. 5, line 15), and converting said output data content into a form compatible with said printer controller (See col. 5, lines 10-15; i.e., wherein in fact that a formatter embodied in firmware for converting PCL to bit mapped  
15 printable images clearly suggests that converting said output data content into a form compatible with said printer controller).

*Referring to claim 18*, Hanson discloses a method of rendering (i.e., printing) data content that is accessible from an information apparatus (i.e., PC 23 of Fig. 1; See col. 4, lines 10-20), comprising:  
selecting an available local output device (i.e., selecting available local printer; See Fig. 3 and col. 5, lines  
20 13-43); automatically uploading (i.e., obtaining) to said information apparatus via direct local communication (i.e., communication channel; See col. 8, lines 1-15) one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) corresponding to said output device (See col. 4, lines 45-57); generating at said information apparatus device-dependent output data (i.e., output of application software executing the function with the

peripheral device) in accordance with said one device-dependent component (i.e., in accordance with the OS independent device driver portion; See col. 8, lines 60-63); and transmitting (i.e., communicating) said output data from said information apparatus to said output device for rendering via direct local communication (See col. 8, lines 43-65).

- 5 Hanson does not expressly teach said output device having a device-specific output engine and an output controller device in local association with said output device, and said direct local communication being with said output controller device.

McCannon discloses a method of updating device drivers and other software routines (See Abstract and col. 1, lines 6-8), wherein an output device (i.e., Printer 10 and Print Engine in Fig. 1) having a device-specific output engine (i.e. Print Mechanism and Controller 22 of Print Engine in Fig. 1) and an output  
10 controller device (i.e., Printer 10 of Fig. 1) in local association with said output device (i.e., said Print Mechanism and Controller of Print Engine and Printer are in local), and a direct local communication (i.e., communication channel between Input/Output interface 34 and Input/output interface 12 in Fig. 1) being with said output controller device (i.e., said channel being with said Printer 10 in Fig 1; See col. 5,  
15 lines 10-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted said printing mechanism (i.e., Printer 10, Print Mechanism and Controller 22 of Print Engine in Fig. 1), as disclosed by McCannon, for said local output device (i.e., printer), as disclosed by Hanson, so as to print an image corresponding to a bit map from said device-dependent output data  
20 (i.e., PDL message) generated by said one or more device-dependent components (i.e., active printer driver routine; See McCannon, col. 2, lines 48-56).

*Referring to claim 21*, Hanson teaches said information apparatus includes a personal computer (i.e., PC 23 of Fig. 1).

*Referring to claim 22*, McCannon teaches said output device includes a printing device (i.e., Printer 10, Print Mechanism and Controller 22 of Print Engine in Fig. 1).

*Referring to claim 24*, Hanson teaches said selecting of an available output device involves user input (i.e., GUI; See Fig. 3 and col. 5, lines 13-43).

5       *Referring to claim 25*, Hanson teaches said selecting of an available output device includes said information apparatus (i.e., PC 23 of Fig. 1) discovering said output device (See Fig. 5 and col. 5, lines 37-43; i.e., user selects an available printer using GUI menu on said PC, then said PC discovers said printer using said selected menu item).

10       *Referring to claim 26*, Hanson teaches said one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) include software code (i.e., GUI object 52 and status monitor object 59 in Fig. 2; See col. 8, lines 19-21 and 51-56).

*Referring to claim 27*, Hanson teaches said one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) include software application (i.e., GUI object 52 and status monitor object 59 in Fig. 2; See col. 8, lines 19-21 and 51-56).

15       *Referring to claim 28*, Hanson teaches said output device is a printer (i.e., printer 27 of Fig. 1) and said one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) include at least part of a printer driver (i.e., peripheral specific data objects 54 of Fig. 2 for said printer, as an example; See col. 8, lines 44-63).

20       *Referring to claim 29*, Hanson teaches said one or more device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) relate to a device driver (i.e., peripheral specific data objects 54 of Fig. 2; See col. 8, lines 44-63) and a user interface (i.e., GUI; See Fig. 3 and col. 5, lines 13-43).

*Referring to claim 30*, Hanson teaches said device-dependent components (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) include information (i.e., said

peripheral specific data objects are printer set-up information, menu item selections and status information of the printer) characterizing said output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32).

*Referring to claim 31*, Hanson teaches said information characterizing said output device includes  
5 a model identifier and an output device identifier (i.e., printer model and printer name in Fig. 5; See col. 5, lines 37-43).

*Referring to claim 33*, McCannon teaches said output controller device (i.e., Printer 10 of Fig. 1) is internal to said output device (i.e., internal to Print Mechanism and Controller 22 of Print Engine in Fig. 1).

10 *Referring to claim 34*, McCannon teaches said output controller device (i.e., Printer 10 of Fig. 1) is an external controller (i.e., external printing controller to PC 30 in Fig. 1; See col. 4, line 66 through col. 5, line 15).

*Referring to claim 35*, McCannon teaches said output controller device (i.e., Printer 10 of Fig. 1) performs, at least partially, raster image processing on said data content (See col. 5, lines 10-15; i.e.,  
15 wherein in fact that a formatter embodied in firmware for converting PCL to bit mapped printable images clearly suggests that said output controller device performs, at least partially, raster image processing on said data content).

*Referring to claim 36*, McCannon teaches converting said output data content into a form compatible with said output engine (See col. 5, lines 10-15; i.e., wherein in fact that a formatter embodied  
20 in firmware for converting PCL to bit mapped printable images clearly suggests that converting said output data content into a form compatible with said output engine).

*Referring to claim 37*, McCannon teaches said output device (i.e., Print Mechanism and Controller 22 of Print Engine in Fig. 1) is a printer (See Printer 10 and Print Mechanism and Controller 22 of Print Engine in Fig. 1) having a print controller (See col. 4, line 66 through col. 5, line 15), and

converting said output data into a form compatible with said printer controller (See col. 5, lines 10-15; i.e., wherein in fact that a formatter embodied in firmware for converting PCL to bit mapped printable images clearly suggests that converting said output data into a form compatible with said printer controller).

5           *Referring to claim 64*, Hanson discloses a method of rendering (i.e., printing) data content that is accessible from an information apparatus (i.e., PC 23 of Fig. 1; See col. 4, lines 10-20), comprising: searching (i.e., selecting from Top Menu in Fig. 3) for a first available local output device from among one or more local output devices that can be accessed by said information apparatus (See Fig. 5, and col. 5, lines 13-43; in fact, user selects an available printer using GUI menu on said PC, then said PC  
10   discovers said local printer using said selected menu item); upon discovery (i.e., identifying) of a first available local output device (e.g., printer), establishing bi-directional communication between said information apparatus and with said first available local output device (i.e., two-way communication channel for receiving and sending packets; See Abstract); receiving from said first available output device information (i.e., printer set-up information, menu item selections or status information of the printer)  
15   regarding a feature of said first available local output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32); determining from said information whether said feature of said first available output device meets a predefined criterion for rendering said data content (i.e., allowing user's desires for printing data; See col. 8, lines 30-43); and transmitting (i.e., communicating) said data content to said first available local output device (See col. 8, lines 48-65) if said feature meets said predefined criterion (See col. 8,  
20   lines 44-47).

Hanson does not teach establishing said bi-directional communication between said information apparatus and an output controller device; and said output controller device being in local association with said first available local output device.

McCannon discloses a method of updating device drivers and other software routines (See Abstract and col. 1, lines 6-8), wherein said method comprising establishing a bi-directional communication (i.e., communication link between input/output module 34 and input/output module 12 in Fig. 1; See col. 5, lines 19-22) between an information apparatus (i.e., PC 30 of Fig. 1) and an output controller device (i.e., Printer 10 of Fig. 1); said output controller device being in local association with a first available local output device (i.e., Printer 10 and Print Engine in Fig. 1; in fact, said Print Mechanism and Controller of Print Engine and Printer are in local; See col. 5, lines 10-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted said printing mechanism (i.e., Printer 10, Print Mechanism and Controller 22 of Print Engine in Fig. 1), as disclosed by McCannon, for said local output device (i.e., printer), as disclosed by Hanson, so as to print an image corresponding to a bit map from said device-dependent output data (i.e., PDL message) generated by said one or more device-dependent components (i.e., active printer driver routine; See McCannon, col. 2, lines 48-56).

*Referring to claim 66*, Hanson teaches providing at said information apparatus a user indication of a user-selectable option to cancel said rendering of said data content (See block 127 and 127 in Fig 10, and col. 8, lines 44-48).

*Referring to claim 67*, Hanson teaches providing at said information apparatus a user indication of a user-selectable option (i.e., GUI; See Fig. 3 and col. 5, lines 13-43) to again attempt to identify an available local output device (See Figs. 3 and 5, and col. 5, lines 13-43; in fact, user selects an available printer using GUI menu on said PC).

*Referring to claim 69*, Hanson teaches said searching for a first available output device involves user input (i.e., GUI; See Fig. 3 and col. 5, lines 13-43).

*Referring to claim 70*, Hanson teaches said feature (i.e., printer set-up, menu item selections or status of the printer) of said first available local output device (i.e., printer) includes a device-dependent

parameter (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) relating to said output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32).

*Referring to claim 71*, Hanson teaches said feature (i.e., printer set-up, menu item selections or status of the printer) of said first available local output device (i.e., printer) includes availability (See Figs. 3 and 5, and col. 5, lines 13-43; in fact, user selects an available printer using GUI menu on said PC).

*Referring to claim 72*, Hanson teaches said predefined criterion includes user input (See col. 8, lines 30-32).

*Referring to claim 73*, Hanson teaches said predefined criterion includes a predetermined default parameter (i.e., printer default setup in Fig. 8G) stored in said information apparatus (i.e., host computer system 10 of Fig. 2; See col. 6, lines 63-65 and col. 10, lines 1-3 and 17).

*Referring to claim 74*, Hanson teaches said predefined criterion including a predefined algorithm (i.e., peripheral specific data objects 54 of Fig. 2) stored in said information apparatus (i.e., host computer system 10 of Fig. 2; in fact, peripheral specific data objects 54 in Fig. 2 are changed by user desires 116 in Fig. 9, which implies that predefined criterion (i.e., criterion for rendering data output) including peripheral specific data objects (i.e., predefined algorithm) with user desired changes).

*Referring to claim 75*, Hanson teaches processing said data content to a form (i.e., emulation form, e.g., PostScript & PCL or PCL & GDI) that is compatible with said output device before transmitting said data content to said first available output device (See col. 5, lines 44-60).

*Referring to claim 78*, Hanson discloses a method of rendering (i.e., printing) data content that is accessible from an information apparatus (i.e., PC 23 of Fig. 1; See col. 4, lines 10-20), comprising: discovering one or more available local output devices that are available to render said data content through direct local communication (i.e., communication channel; See col. 8, lines 1-15) with each of said output devices (See Fig. 5 and col. 5, lines 37-43; i.e., user selects an available printer using GUI menu on said PC, then said PC discovers said printer using said selected menu item); generating at said

information apparatus a list of said one or more available local output devices that are discovered (i.e., list of printers available on local area network; See col. 5, lines 37-41) and specifying at least one characteristic of each of said available output devices (i.e., specifying printer name, manufacturer, model, characteristic of printer; See col. 5, lines 41-43); determining (i.e., identifying and selecting) from said characteristics of said one or more available local output devices which of them meets a predefined criterion (i.e., user's desires) for rendering said data content (i.e., allowing user's desires for printing data; See col. 8, lines 30-43); and establishing communication (i.e., communication channel) with each of said one or more available local output devices (See col. 8, lines 1-15) that meets said predefined criterion through direct local communication with said one or more available local output devices (i.e., user selected and changed printer setting based on said user's desires; See col. 8, lines 16-43).

Hanson does not expressly teach said output device having an output controller device in local association with said output device, and said direct local communication being with said output controller device.

McCannon discloses a method of updating device drivers and other software routines (See Abstract and col. 1, lines 6-8), wherein an output device (i.e., Printer 10 and Print Engine in Fig. 1) having an output controller device (i.e., Printer 10 of Fig. 1) in local association with said output device (i.e., said Print Mechanism and Controller of Print Engine and Printer are in local), and a direct local communication (i.e., communication channel between Input/Output interface 34 and Input/output interface 12 in Fig. 1) being with said output controller device (i.e., said channel being with said Printer 10 in Fig 1; See col. 5, lines 10-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted said printing mechanism (i.e., Printer 10, Print Mechanism and Controller 22 of Print Engine in Fig. 1), as disclosed by McCannon, for said local output device (i.e., printer), as disclosed by Hanson, so as to print an image corresponding to a bit map from said device-dependent output data

(i.e., PDL message) generated by said one or more device-dependent components (i.e., active printer driver routine; See McCannon, col. 2, lines 48-56).

*Referring to claim 80*, Hanson teaches said determining which of said one or more available local output devices meet said predefined criterion is performed by a user (i.e., user determines a desired printer and its setting through GUI; See Fig. 3 and col. 5, lines 13-43).

*Referring to claim 82*, Hanson teaches said predefined criterion includes availability (See Figs. 3 and 5, and col. 5, lines 13-43; in fact, user selects an available printer using GUI menu on said PC).

*Referring to claim 83*, Hanson teaches said predefined criterion includes user input (See col. 8, lines 30-32).

*Referring to claim 84*, Hanson teaches said predefined criterion includes a predetermined default parameter (i.e., printer default setup in Fig. 8G) stored in said information apparatus (i.e., host computer system 10 of Fig. 2; See col. 6, lines 63-65 and col. 10, lines 1-3 and 17).

4. Claims 2, 20, 68 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] as applied to claims 1, 3, 4, 6-10, 12-16, 18, 21, 22, 24-31, 33-37, 64, 66, 67, 69-75, 78, 80 and 82-84 above, and further in view of Ito et al. [US 6,529,522 B1; hereinafter Ito].

*Referring to claim 2*, Hanson, as modified by McCannon, discloses all the limitations of the claim 2, including said channel of communication directly (See Hanson, col. 8, lines 1-15) between said information apparatus (i.e., PC 23 of Fig. 1; Hansen) and said output controller device (i.e., Printer 10 of Fig. 1; McCannon), except that does not teach said channel of communication including a wireless communication channel.

Ito discloses a communication apparatus with wireless interfaces (See Figs. 2 and 3), wherein a channel of communication (i.e., an infrared communication channel; See col. 9, lines 39-42) between an information apparatus (i.e., digital camera 201 of Fig. 3) and an output device (i.e., printer 202 of Fig. 3) including a

wireless communication channel (i.e., wireless communication between digital camera 201 and printer 202 in Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said wireless interfaces, as disclosed by Ito, in said information apparatus and

5 output device, as disclosed by Hanson, as modified by McCannon, so as said information apparatus (i.e., digital camera) to transfer said data content (i.e., image data) to said output device without cumbersome cable connection, and thus said information apparatus (i.e., digital camera) does not lose the mobility of a portable device (See Ito, col. 8, lines 51-55).

*Referring to claim 20*, Hanson, as modified by McCannon, discloses all the limitations of the  
10 claim 20, including said uploading said one or more device dependent components employs said direct local communication (See Hanson, col. 8, lines 1-15) between said information apparatus (i.e., PC 23 of Fig. 1; Hansen) and said output controller device (i.e., Printer 10 of Fig. 1; McCannon), except that does not teach said direct local communication including a wireless communication.

Ito discloses a communication apparatus with wireless interfaces (See Figs. 2 and 3), wherein a channel of  
15 communication (i.e., an infrared communication channel; See col. 9, lines 39-42) between an information apparatus (i.e., digital camera 201 of Fig. 3) and an output device (i.e., printer 202 of Fig. 3) including a wireless communication channel (i.e., wireless communication between digital camera 201 and printer 202 in Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was  
20 made to have included said wireless interfaces, as disclosed by Ito, in said information apparatus and output device, as disclosed by Hanson, as modified by McCannon, so as said information apparatus (i.e., digital camera) to transfer said data content (i.e., image data) to said output device without cumbersome cable connection, and thus said information apparatus (i.e., digital camera) does not lose the mobility of a portable device (See Ito, col. 8, lines 51-55).

*Referring to claim 68*, Hanson, as modified by McCannon, discloses all the limitations of the claim 68, including said bi-directional communication (See Hanson, col. 8, lines 1-15) between said information apparatus (i.e., PC 23 of Fig. 1; Hansen) and said output controller device (i.e., Printer 10 of Fig. 1; McCannon), except that does not teach said channel of communication including a wireless communication.

Ito discloses a communication apparatus with wireless interfaces (See Figs. 2 and 3), wherein a channel of communication (i.e., an infrared communication channel; See col. 9, lines 39-42) between an information apparatus (i.e., digital camera 201 of Fig. 3) and an output device (i.e., printer 202 of Fig. 3) including a wireless communication (i.e., wireless communication between digital camera 201 and printer 202 in Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said wireless interfaces, as disclosed by Ito, in said information apparatus and output device, as disclosed by Hanson, as modified by McCannon, so as said information apparatus (i.e., digital camera) to transfer said data content (i.e., image data) to said output device without cumbersome cable connection, and thus said information apparatus (i.e., digital camera) does not lose the mobility of a portable device (See Ito, col. 8, lines 51-55).

*Referring to claim 81*, Hanson, as modified by McCannon, discloses all the limitations of the claim 81, except that does not teach said discovering of said one or more local output device including a wireless communication.

Ito discloses a communication apparatus with wireless interfaces (See Figs. 2 and 3), wherein a channel of communication (i.e., an infrared communication channel; See col. 9, lines 39-42) between an information apparatus (i.e., digital camera 201 of Fig. 3) and a local output device (i.e., printer 202 of Fig. 3), and discovering of said local output device including a wireless communication channel (i.e., wireless communication between digital camera 201 and printer 202 in Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said wireless interfaces, as disclosed by Ito, in said information apparatus and output device, as disclosed by Hanson, as modified by McCannon, so as said information apparatus (i.e., digital camera) to transfer said data content (i.e., image data) to said output device without cumbersome cable connection, and thus said information apparatus (i.e., digital camera) does not lose the mobility of a portable device (See Ito, col. 8, lines 51-55).

5        Claims 5 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] as applied to claims 1, 3, 4, 6-10, 12-16, 18, 21, 22, 24-31, 33-37, 64, 66, 67, 69-75, 78, 80 and 82-84 above, and further in view of Lin et al. [US  
10    6,421,748 B1; hereinafter Lin].

*Referring to claims 5 and 23*, Hanson, as modified by McCannon, discloses all the limitations of the claims 5 and 23, respectively, except that does not teach said device dependent output data including compressed data.

Lin discloses a method for data optimizing (See Fig. 5 and col. 6, lines 18-48), wherein a device  
15    dependent output data includes compressed data (See col. 3, lines 55-57, col. 6, line 36, and Fig. 5, step 5024).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said data optimizing, as disclosed by Lin, in said method, as disclosed by Hanson, as modified by McCannon, for the advantage of minimizing said device-dependent output data size and  
20    transmission time (See Lin, col. 1, lines 45-50).

6.        Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] as applied to claims 1, 3, 4, 6-10, 12-16, 18, 21, 22, 24-31, 33-37, 64, 66, 67, 69-75, 78, 80 and 82-84 above, and further in view of Shiota et al. [US 6,324,521 B1; hereinafter Shiota].

*Referring to claims 17 and 19*, Hanson, as modified by McCannon, discloses all the limitations of the claims 17 and 19, respectively, except that does not teach the step of providing payment information from said information apparatus to pay for said rendering provided by said output device.

Shiota discloses a print order scheme in a network photograph service system (See Abstract), wherein

5 said system performs the step of providing a payment information (i.e., payment method of order information in Fig. 2) from an information apparatus (i.e., customer's personal computer 6 of Fig. 5) to pay for rendering provided by an output device (See col. 9, lines 36-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said print order scheme, as disclosed by Shiota, in said method, as disclosed by

10 Hanson, as modified by McCannon, so as to compensate for the cost of said rendering service (i.e., printing service) at said output device (See Shiota, col. 9, lines 36-40).

7. Claims 38, 76, 85 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] and what was well known in the art, as exemplified by Lach [US 6,363,452 B1].

15 *Referring to claims 38, 76 and 85*, most of the claim limitations have already been discussed/addressed with respect to claims 18, 64 and 78, respectively, with the exception of said method of claims 18, 64 and 78, respectively, being implemented in software, which is stored in a computer readable medium.

The Examiner takes Official Notice that said method steps of the claim 18 could be achieved in all  
20 software implementation with the same or equivalent results, using appropriate program codes (i.e., processor instructions), which are stored in a computer readable medium (i.e., memory), is well known to one of ordinary skill in the art, as evidenced by Lach, at col. 12, lines 3-9.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have implemented said method, as disclosed by Hanson, as modified by McCannon, in software,

so as to store said appropriate program codes (i.e., processor instructions) into said computer readable medium (i.e., memory) since it would allow a better flexibility of an implementation than a hardware implementation.

*Referring to claim 87*, all the claim limitations have already been discussed/addressed with respect to claims 80 and 85, such that said method of claim 80 would be implemented in software, which is stored in a computer readable medium.

8. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] and what was well known in the art, as exemplified by Lach [US 6,363,452 B1] as applied to claim 38 above, and further in view of Shiota [US 6,324,521 B1].

*Referring to claim 39*, Hanson, as modified by McCannon, discloses all the limitations of the claim 39, except that does not teach the step of providing payment information from said information apparatus to pay for said rendering provided by said output device.

Shiota discloses a print order scheme in a network photograph service system (See Abstract), wherein said system performs the step of providing a payment information (i.e., payment method of order information in Fig. 2) from an information apparatus (i.e., customer's personal computer 6 of Fig. 5) to pay for rendering provided by an output device (See col. 9, lines 36-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said print order scheme, as disclosed by Shiota, in said method, as disclosed by Hanson, as modified by McCannon, so as to compensate for the cost of said rendering service (i.e., printing service) at said output device (See Shiota, col. 9, lines 36-40).

9. Claims 40 and 46-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] and Shimokawa [US 6,788,428 B1].

*Referring to claim 40*, Hanson discloses a method of rendering (i.e., printing) data content that is accessible from an information apparatus (i.e., PC 23 of Fig. 1; See col. 4, lines 10-20), comprising:

identifying (i.e., selecting and discovering) a first available local output device from among one or more local output devices that can be accessed by said information apparatus (See Figs. 3 and 5, and col. 5, lines 13-43; in fact, user selects an available printer using GUI menu on said PC, then said PC discovers said local printer using said selected menu item), said first available local output device providing local communication with said information apparatus (i.e., providing communication channel with said PC; See col. 8, lines 1-15); establishing bi-directional communication (i.e., two-way communication channel for receiving and sending packets; See Abstract) directly between said information apparatus and said first available local output device (See col. 8, lines 1-15); receiving at said information apparatus information (i.e., printer set-up information, menu item selections or status information of the printer) regarding a feature of said first available output device, said information being provided from said output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32); determining from said information whether said feature of said first available local output device meets a predefined criterion for rendering said data content (i.e., allowing user's desires for printing data; See col. 8, lines 30-43); and transmitting (i.e., communicating) said data content to said first available local output device (See col. 8; lines 48-65) if said feature meets said predefined criterion (See col. 8, lines 44-47).

Hanson does not teach establishing said bi-directional communication directly between said information apparatus and an output controller device; and said first available local output device including in local association with it said output controller device that provides local communication with said information apparatus.

McCannon discloses a method of updating device drivers and other software routines (See Abstract and col. 1, lines 6-8), wherein said method comprising establishing a bi-directional communication (i.e., communication link between input/output module 34 and input/output module 12 in Fig. 1; See col. 5, lines 19-22) directly between an information apparatus (i.e., PC 30 of Fig. 1) and an output controller device (i.e., Printer 10 of Fig. 1); a first available local output device (i.e., Printer 10 and Print Engine in

Fig. 1) including in local association with it said output controller device (in fact, said Print Mechanism and Controller of Print Engine and Printer are in local; See col. 5, lines 10-15) that provides local communication (i.e., communication channel between Input/Output interface 34 and Input/output interface 12 in Fig. 1) with an information apparatus (i.e., PC 30 of Fig. 1).

5 Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted said printing mechanism (i.e., Printer 10, Print Mechanism and Controller 22 of Print Engine in Fig. 1), as disclosed by McCannon, for said local output device (i.e., printer), as disclosed by Hanson, so as to print an image corresponding to a bit map from said device-dependent output data (i.e., PDL message) generated by said one or more device-dependent components (i.e., active printer  
10 driver routine; See McCannon, col. 2, lines 48-56).

Hanson, as modified by McCannon, does not clearly suggest said information being provided from said output controller device in local association with said first available local output device.

Shimokawa discloses a data printing system (See Abstract and Fig. 2), wherein information being provided from an output controller device (i.e., printer controller 17 of Fig. 2; See col. 4, lines 23-26) in  
15 local association with an first available local output device (i.e., printing unit 19 of Fig 2; in fact said printer controller being locally with said printing unit); said information being provided to an information apparatus (i.e., PC/WS 2 of Fig. 2), actually, to a printing condition prescriber 15 in Fig. 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said printing condition prescriber of said information apparatus, as disclosed by  
20 Shimokawa, in said information apparatus (i.e., PC), as disclosed by Hanson, as modified by McCannon so as to set a rendering (i.e., printing) condition for said data content (See Shimokawa, col. 4, lines 6-7) for the advantage of allowing a first application for processing a plurality of rendering (i.e., printing) job files to process said data contents for rendering (i.e., printing) and a second application to change said

rendering (i.e., printing) conditions individually for each rendering (i.e., printing) job file or commonly for all of said rendering (i.e., printing) job files (See Shimokawa, col. 2, lines 11-16).

*Referring to claim 46*, Hanson teaches said identifying of an available local output device involves user input (i.e., GUI; See Fig. 3 and col. 5, lines 13-43).

5       *Referring to claim 47*, Hanson teaches said identifying of an available local output device involves a discovery process (See Fig. 5 and col. 5, lines 37-43; i.e., user selects an available printer using GUI menu on said PC, then said PC discovers said printer using said selected menu item).

10       *Referring to claim 48*, Hanson teaches said feature (i.e., printer set-up, menu item selections or status of the printer) includes information (i.e., printer set-up information, menu item selections and status information of the printer) characterizing said output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32).

15       *Referring to claim 49*, Hanson teaches said feature (i.e., printer set-up, menu item selections or status of the printer) includes a device-dependent parameter (i.e., GUI object 52, peripheral specific data objects 54, and status monitor object 59 in Fig. 2) relating to said output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32).

*Referring to claim 50*, Hanson teaches said feature (i.e., printer set-up, menu item selections or status of the printer) including information (i.e., said peripheral specific data objects are printer set-up information, menu item selections and status information of the printer) about a service (i.e., printing service) provided by said output device (See col. 5, lines 13-25, col. 8, lines 16-19 and 30-32).

20       *Referring to claim 51*, Hanson teaches said information (i.e., said peripheral specific data objects are printer set-up information, menu item selections and status information of the printer) about said service (i.e., printing service) by said output device includes availability (See Figs. 3 and 5, and col. 5, lines 13-43; in fact, user selects an available printer using GUI menu on said PC).

*Referring to claim 52*, Hanson teaches said predefined criterion includes user input (See col. 8, lines 30-32).

*Referring to claim 53*, Hanson teaches said predefined criterion including a predetermined default parameter (i.e., printer default setup in Fig. 8G) stored in said information apparatus (i.e., host computer system 10 of Fig. 2; See col. 6, lines 63-65 and col. 10, lines 1-3 and 17).

*Referring to claim 54*, Hanson teaches said predefined criterion including a predefined algorithm (i.e., peripheral specific data objects 54 of Fig. 2) stored in said information apparatus (i.e., host computer system 10 of Fig. 2; in fact, peripheral specific data objects 54 in Fig. 2 are changed by user desires 116 in Fig. 9, which implies that predefined criterion (i.e., criterion for rendering data output) including peripheral specific data objects (i.e., predefined algorithm) with user desired changes).

*Referring to claim 55*, Hanson teaches processing said data content to a form (i.e., emulation form, e.g., PostScript & PCL or PCL & GDI) that is compatible with said output device before transmitting said data content to said output device (See col. 5, lines 44-60).

*Referring to claim 56*, Hanson teaches said information apparatus includes a personal computer (i.e., PC 23 of Fig. 1).

*Referring to claim 57*, McCannon teaches said output device includes a printing device (i.e., Printer 10, Print Mechanism and Controller 22 of Print Engine in Fig. 1).

10. Claims 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] and Shimokawa [US 6,788,428 B1] as applied to claims 40 and 46-57 above, and further in view of Takahashi [US 6,246,486 B1].

*Referring to claim 41*, Hanson, as modified by McCannon and Shimokawa discloses all the limitations of the claim 41 except that does not expressly teach the step of performing action if it is determined that said feature of said first available output device does not meet said predefined criterion.

Takahashi discloses a print processing method (See Abstract and Fig. 5), wherein said method comprising: determining from an information whether a feature (e.g., printer language) of a first available output device (i.e., a selected printer) meets a predefined criterion (i.e., if the printer language is supported by the selected printer) for rendering data content (See Steps S102-S103 in Fig. 5, and col. 5, lines 31-47); and performs a restart of said method to a second available output device (i.e., another printer) if it is determined that said feature of said first available output device does not meet said predefined criterion (See Steps S103, S107 and S108 in Fig. 5, and col. 5, lines 48-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said restart of said method, as disclosed by Takahashi, in said method, as disclosed by Hanson, as modified by McCannon and Shimokawa, so as to instruct said information apparatus (i.e., user) to select said second available output device (i.e., another printer) by displaying a message indicating such an instruction (See Takahashi, col. 5, lines 15-19).

Accordingly, Hanson, as modified by McCannon, Shimokawa and Takahashi, teaches said method in which it is determined that said feature of said first available output device does not meet said predefined criterion (See Takahashi, Steps S103, S107 and S108 in Fig. 5, and col. 5, lines 48-62), said method further comprising: identifying (i.e., selecting and discovering) a second available local output device from among one or more local output devices that can be accessed by said information apparatus (See Hanson, Figs. 3 and 5, and col. 5, lines 13-43; in fact, user selects an available printer using GUI menu on said PC, then said PC discovers said local printer using said selected menu item), said second available local output device (i.e., Printer 10 and Print Engine in Fig. 1; McCannon) including in local association with it a second output controller device (i.e., Printer 10 of Fig. 1; in fact, said Print Mechanism and Controller of Print Engine and Printer are in local; McCannon) that provides local communication (i.e., communication channel between Input/Output interface 34 and Input/output interface 12 in Fig. 1; McCannon) with said information apparatus (i.e., PC 30 of Fig. 1; McCannon); establishing a bi-

directional communication (i.e., communication link between input/output module 34 and input/output module 12 in Fig. 1; See McCannon, col. 5, lines 19-22) directly between said information apparatus (i.e., PC 30 of Fig. 1; McCannon) and said second output controller device (i.e., Printer 10 of Fig. 1) of said second available output device (i.e., Printer 10 and Print Engine in Fig. 1); receiving at said information apparatus information (i.e., printer set-up information, menu item selections or status information of the printer; Hanson) from said second output controller device of said second available output device information being provided from said second output controller device (i.e., printer controller 17 of Fig. 2; See Shimokawa, col. 4, lines 23-26) of said second available local output device (i.e., printing unit 19 of Fig 2; in fact said printer controller being locally with said printing unit; Shimokawa) regarding a feature of said second available output device (i.e., printing condition; See Shimokawa, col. 4, lines 6-29); determining from said information whether said feature of said second available output device meets said predefined criterion for rendering said data content (i.e., allowing user's desires for printing data; See Hanson, col. 8, lines 30-43); and transmitting (i.e., communicating) said data content to said second available local output device (See Hanson, col. 8, lines 48-65) if said feature meets said predefined criterion (See Hanson, col. 8, lines 44-47).

*Referring to claim 42*, Hanson, as modified by McCannon and Shimokawa, discloses all the limitations of the claim 42, except that does not expressly teach the step of performing a decision if it is determined that said feature of said first available local output device does not meet said predefined criterion.

Takahashi discloses a print processing method (See Abstract and Fig. 5), wherein said method comprising: determining from an information whether a feature (e.g., printer language) of a first available output device (i.e., a selected printer) meets a predefined criterion (i.e., if the printer language is supported by the selected printer) for rendering data content (See Steps S102-S103 in Fig. 5, and col. 5, lines 31-47); and providing at an information apparatus (i.e., CPU 101 of Fig. 2) a user indication (See

Step S107 in Fig. 5) that said first available output device does not meet said predefined criterion (See Steps S103, S107 and S108 in Fig. 5, and col. 5, lines 48-62) in order to perform a restart of said method to a second available output device (i.e., another printer).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

made to have included said restart of said method, as disclosed by Takahashi, in said method, as disclosed by Hanson, as modified by McCannon and Shimokawa, for the advantage of providing the user to recognize that said first available output device (i.e., the selected printer) selected by the user is incorrect, thereby enhancing ease of use (See Takahashi, col. 6, lines 1-3).

*Referring to claim 43*, Hanson teaches providing at said information apparatus a user indication of a user-selectable option to cancel said rendering of said data content (See block 127 and 127 in Fig 10, and col. 8, lines 44-48).

*Referring to claim 44*, Hanson teaches providing at said information apparatus a user indication of a user-selectable option (i.e., GUI; See Fig. 3 and col. 5, lines 13-43) to attempt to identify an available local output device with a feature that meets said predefined criterion (See Figs. 3 and 5, and col. 5, lines 13-43; in fact, user selects an available printer using GUI menu on said PC).

11. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] and Shimokawa [US 6,788,428 B1] as applied to claims 40 and 46-57 above, and further in view of Ito [US 6,529,522 B1].

*Referring to claim 45*, Hanson, as modified by McCannon and Shimokawa, discloses all the limitations of the claim 45, including said bi-directional communication locally (See Hanson, col. 8, lines 1-15) between said information apparatus (i.e., PC 23 of Fig. 1; Hansen) and said output controller device (i.e., Print Mechanism and Controller 22 of Fig. 1; McCannon), except that does not teach said bi-directional communication including a wireless communication.

Ito discloses a communication apparatus with wireless interfaces (See Figs. 2 and 3), wherein a said bi-directional communication (i.e., an infrared communication channel; See col. 9, lines 39-42) between an information apparatus (i.e., digital camera 201 of Fig. 3) and an output device (i.e., printer 202 of Fig. 3) including a wireless communication (i.e., wireless communication between digital camera 201 and printer 202 in Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said wireless interfaces, as disclosed by Ito, in said information apparatus and output device, as disclosed by Hanson, as modified by McCannon and Shimokawa, so as said information apparatus (i.e., digital camera) to transfer said data content (i.e., image data) to said output device without cumbersome cable connection, and thus said information apparatus (i.e., digital camera) does not lose the mobility of a portable device (See Ito, col. 8, lines 51-55).

12. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] and Shimokawa [US 6,788,428 B1] as applied to claims 40 and 46-57 above, and further in view of Lin [US 6,421,748 B1].

15 *Referring to claim 58*, Hanson, as modified by McCannon and Shimokawa, discloses all the limitations of the claim 58, except that does not teach said device dependent output data including compressed data.

Lin discloses a method for data optimizing (See Fig. 5 and col. 6, lines 18-48), wherein a device dependent output data includes compressed data (See col. 3, lines 55-57, col. 6, line 36, and Fig. 5, step 5024).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said data optimizing, as disclosed by Lin, in said method, as disclosed by Hanson, as modified by McCannon and Shimokawa, for the advantage of minimizing said device-dependent output data size and transmission time (See Lin, col. 1, lines 45-50).

13. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1], Shimokawa [US 6,788,428 B1] and what was well known in the art, as exemplified by Lach [US 6,363,452 B1].

*Referring to claim 59*, most of the claim limitations have already been discussed/addressed with respect to claim 40, with the exception of said method of claim 40 being implemented in software, which is stored in a computer readable medium.

The Examiner takes Official Notice that said method steps of the claim 40 could be achieved in all software implementation with the same or equivalent results, using appropriate program codes (i.e., processor instructions), which are stored in a computer readable medium (i.e., memory), is well known to one of ordinary skill in the art, as evidenced by Lach, at col. 12, lines 3-9.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have implemented said method, as disclosed by Hanson, as modified by McCannon and Shimokawa, in software, so as to store said appropriate program codes (i.e., processor instructions) into said computer readable medium (i.e., memory) since it would allow a better flexibility of an implementation than a hardware implementation.

14. Claims 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1], Shimokawa [US 6,788,428 B1] and what was well known in the art, as exemplified by Lach [US 6,363,452 B1] as applied to claim 59 above, and further in view of Takahashi [US 6,246,486 B1].

*Referring to claim 60*, all the claim limitations have already been discussed/addressed with respect to claims 41 and 59, such that said method of claim 41 would be implemented in software, which is stored in a computer readable medium.

*Referring to claim 61*, all the claim limitations have already been discussed/addressed with respect to claims 42 and 59, such that said method of claim 42 would be implemented in software, which

is stored in a computer readable medium.

*Referring to claim 62*, all the claim limitations have already been discussed/addressed with respect to claims 43 and 61, such that said method of claim 43 would be implemented in software, which is stored in a computer readable medium.

5       *Referring to claim 63*, all the claim limitations have already been discussed/addressed with respect to claims 44 and 61, such that said method of claim 44 would be implemented in software, which is stored in a computer readable medium.

15.       Claims 65 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] as applied to claims 1, 3, 4, 6-10, 12-16, 18, 21,  
10       22, 24-31, 33-37, 64, 66, 67, 69-75, 78, 80 and 82-84 above, and further in view of Takahashi [US 6,246,486 B1].

*Referring to claim 65*, Hanson, as modified by McCannon, discloses all the limitations of the claim 65 except that does not expressly teach the step of providing at said information apparatus a user indication that a first available local output device has not been discovered if a first available local output  
15       device is not discovered in said searching.

Takahashi discloses a print processing method (See Abstract and Fig. 5), wherein said method comprising: determining from an information whether a feature (e.g., printer language) of a first available local output device (i.e., a selected printer) meets a predefined criterion (i.e., if the printer language is supported by the selected printer) for rendering data content (See Steps S102-S103 in Fig. 5, and col. 5,  
20       lines 31-47); and providing at an information apparatus (i.e., CPU 101 of Fig. 2) a user indication (See Step S107 in Fig. 5) that said first available local output device has not been discovered (See Steps S103, S107 and S108 in Fig. 5) if said first available local output device is not discovered in searching (See col. 5, lines 48-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said restart of said method, as disclosed by Takahashi, in said method, as disclosed by Hanson, as modified by McCannon, for the advantage of providing the user to recognize that said first available local output device (i.e., the selected printer) selected by the user is incorrect, thereby enhancing ease of use (See Takahashi, col. 6, lines 1-3).

*Referring to claim 79*, Hanson, as modified by McCannon, discloses all the limitations of the claim 79, except that does not expressly teach the step of determining which of said one or more available local output devices meet said predefined criterion is performed automatically by said information apparatus.

Takahashi discloses a print processing method (See Abstract and Fig. 5), wherein said method comprising: determining which of one or more available local output devices (i.e., printers 200, 300 and 400 in Fig. 1) meet a predefined criterion (i.e., if the printer language is supported by the selected printer) is performed automatically by an information apparatus (i.e., CPU 101 of Fig. 2; See col. 4, lines 46-62). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said restart of said method, as disclosed by Takahashi, in said method, as disclosed by Hanson, as modified by McCannon, for the advantage of providing the user to perform a correct outputting (i.e., printing) operation while said output device's predefined criterion (i.e., printer languages) of said individual output devices (i.e., printers) connected to said communication (i.e., network) are transparent to the user (See Takahashi, col. 4, line 67 through col. 5, line 3).

16. Claims 77 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson [US 6,148,346 A] in view of McCannon [US 6,607,314 B1] and what was well known in the art, as exemplified by Lach [US 6,363,452 B1] as applied to claims 38, 76, 85 and 87 above, and further in view of Takahashi [US 6,246,486 B1].

*Referring to claim 77*, all the claim limitations have already been discussed/addressed with

respect to claims 65 and 76, such that said method of claim 65 would be implemented in software, which is stored in a computer readable medium.

*Referring to claim 86*, all the claim limitations have already been discussed/addressed with respect to claims 79 and 85, such that said method of claim 79 would be implemented in software, which is stored in a computer readable medium.

### ***Response to Arguments***

17. Applicants' arguments with respect to claims 1-10, 12-31 and 33-87 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Lee whose telephone number is 571-272-3637. The examiner can normally be reached on 9:30am - 5:30pm.

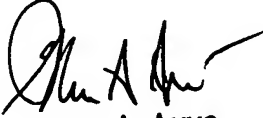
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H. Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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